DOCUMENT RESUME

ED 291 532 RC 016 321

AUTHOR Miller, Linda
TITLE Female Educators, Development, and Human Capital: A Brazilian Case. Working Paper #35.
INSTITUTION Michigan State Univ., East Lansing. Office of Women in International Development.
SPONS AGENCY Ford Foundation, New York, N.Y.
PUB DATE Sep 83
NOTE 21p.
AVAILABLE FROM Office of Women in International Development, 202 International Center, Michigan State University, East Lansing, MI 48824.
PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Community Attitudes; Community Role; Developing Nations; *Economic Development; Elementary Secondary Education; *Females; Field Studies; Foreign Countries; *Human Capital; Human Resources; *Labor Force; Patriotism; *Productivity; Role of Education; Skill Development; Social Status; Teacher Qualifications; *Teacher Role; Unskilled Workers
IDENTIFIERS *Brazil; Human Capital Theory

ABSTRACT

The role of female educators in the Brazilian Amazon community of Itaituba (population in 1970: 12,690) has fallen short of that envisioned by the policymakers and social scientists in the early 1970s, as indicated by research conducted in 1976-77. Based on the "human capital" theory, better-trained local teachers were to train the local labor force, thereby improving productivity. Itaituba experienced rapid growth during the 1970s due to the construction of two federal highways. A new middle class emerged, of which female educators were an important segment. More students were reached and they stayed in school longer. After graduating, however, they left the community in search of more education and better jobs. By 1977 it was clear that the contribution of female educators to the economic development of the region was negligible, although they were able to promote community life, national integration, and patriotic nationalism in ways consistent with gender and class expectations and restraints (social class inequality that often benefits middle- and upper-class women outweighed gender inequality). At present, cheap unskilled labor is in more demand than skilled, productive--and more expensive--labor. Thus, the effort to develop human capital remains an ideal rather than a reality in frontier communities like Itaituba. Thirty-two references are appended. (JMM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

RC

WORKING PAPERS

FEMALE EDUCATORS, DEVELOPMENT, AND HUMAN CAPITAL: A BRAZILIAN CASE

by

Linda Miller

September 1983

Working Paper #35

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☑ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Rita S. Gallin

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

FEMALE EDUCATORS, DEVELOPMENT, AND HUMAN CAPITAL: A BRAZILIAN CASE

by

Linda Miller

September 1983

Working Paper #35

Abstract: Policy makers and social scientists envisioned a role for educators in development based on "human capital" theory. In the Brazilian Amazon frontier community of Itaituba, female educators do contribute to community, human resources, and economic development in ways consistent with gender and class expectations and constraints. Their overall impact on economic development, however, is negligible because the extractive economic system favors cheap, unskilled labor rather than a better-trained, more productive local labor force.

About the Author: Linda Miller, an anthropologist, is currently Assistant Professor in the Department of Sociology and Criminal Justice, Old Dominion University, Norfolk, Virginia. She is interested in education, community studies, and applied anthropology.

Copyright 1983, MSU Board of Trustees

FEMALE EDUCATORS, DEVELOPMENT, AND HUMAN CAPITAL: A BRAZILIAN CASE

The Brazilian Amazon community of Itaituba experienced a decade of rapid population growth in the 1970s spurred by the construction of the Transamazon and Cuiabá-Santarém Highways and the accelerated growth of gold mining activities. Policy makers and social scientists envisioned a role for educators in development based on "human capital" theory. Basically, better-trained local teachers were to better train the local labor force, thereby increasing productivity. By 1977, it was clear that tne contribution of female educators to economic development in Itaituba was negligible. Educators, however, had a changed and expanded role in the community which indicated that they were contributing in several ways to community development and to human resources development.

In this paper, I first define my use of the term development. Then, I discuss the inclusion of education in Latin American development theory and planning as well as the relationship of education and development to gender and social class. Next, I present the results of my research in Itaituba on the role of female educators in development.[1] Finally, I offer conclusions based on a comparison of the observed role of female educators in development with the ideal presented in theory and planning.[2]

Development

Although development has been the subject of investigation by numerous researchers, my own use of the term is tailored to fit the research problem and usually will be qualified by the terms community, human resources, and economic. I am primarily interested in human development, and I use the term in the sense of Paulo de Almeida Machado, former director of the National Institute of Amazonian Research, when he wrote, "Without developing the human beings of the region, it will be impossible to have a lasting development" (1974:327). Machado insists that the local level society must participate in the developmental process for economic progress to be transformed into real development (1974:316).

In practice, human development means either community development or human resources development, depending on whether a group or an individual perspective is used. On a group level, human development means making the community a better place to live by strengthening the sense of community life people share, their sense of pride in the community as a progressive urban center, their general sense of social cohesiveness and belonging, and their affirmation at the community level of patriotic nationalism. On an individual level, human development means improving the lives of people by enabling them to develop the skills necessary to take advantage of opportunities and, therefore, better meet their needs. Human development thus can include economic development, but it also includes factors which, while less amenable to quantitative measure, are nonetheless real and observable.

Although economic development is the subject of most development literature, I am not primarily concerned with it, except insofar as my evidence will or will not show that educators contribute to economic development in some way. In general, I am presenting a negative case where students are concerned, but a positive one where educators are concerned.

With these considerations in mind, I define development as a type of change that is related to growth in the sense that both growth and development imply progression in one direction. Development, however, can be distinguished from growth in that it means a qualitative improvement in addition to quantitative growth, so that, in effect, development includes growth but has an additional qualitative dimension. While growth is quite vulnerable to reversal, due to changes in conditions (as in boom and bust economic cycles), development is long term and harder to reverse. Growth allows people to utilize the skills they have to take advantage of an opportunity for improvement. Development allows people to improve their skills or learn new ones so that they stand a better chance of consolidating and maintaining improvements when opportunities change. In education, an analogy to growth and development is the distinction between learning a set of skills--or body of knowledge--and learning to learn. The latter has a more profound, long-lasting effect on the individual since it gives a person more flexibility and a greater ability to adapt.

Education and Development in Latin America

Education and development in Latin America are seen as "twin products of given economic and social structures" (U.N. 1968:77). In other words, "economic growth and educational development have been closely related in Latin America. One cannot be understood without the other" (Havighurst and Moreira 1965:113).

In recent years, social scientists who developed human capital theory (Schultz 1963; Becker 1964; Mincer 1974) have promoted the idea that government investment in education would raise the individual's productivity and promote economic development. Havighurst and Moreira define human capital as human skills and knowledge; it is one of five factors that determines the level of economic production in a society and is especially important in Brazil (1965:121). Citing human capital theory, Senna presents what he calls the "efficiency" argument that the Brazilian government's priority in educational investment should be changed from the university level to the First Level (grades one through eight) because the "social rates of return" are highest at the First Level (Senna 1975:175).

Brazilian policy makers and planners included education in the national and regional development plans of the 1970s. Mario Simonsen, former head of the Brazilian Literacy Movement (MOBRAL) and later Minister of Finance, viewed expanding the educational system as the way to promote long-term development "given that greatest distortions in income usually stem from similar disparities in level of education" (1973:8). Simonsen, however, pointed out that the Brazilian model of development in the 1970s included a priority on productivity over redistribution of income in order to accelerate growth of the GNP (Gross National Product), "accepting as a short-term liability the corollary of an appreciable imbalance between individual rates of income" (1973:7).

Development plans for the Amazon region included human capital development through improved educational services. The Second Amazon Development Plan placed a priority on short-term training programs to improve both educators and the labor force (SUDAM 1976). The planners skillfully stated the problem as follows: when professionals are educated outside the Amazon region, they tend not to return because of better working conditions and pay elsewhere. In addition, education outside the region is not always suitable for the Amazon.

Traditionally, both professional level and semi-skilled labor have been imported from other regions. This strategy may be helpful in the short term; but, from the point of view of regional socioeconomic development, there are grave repercussions because the education and accumulation of human resources and "know-how" from within the region is not stimulated (SUDAM 1976:74). The policy recommendations were therefore: first, to improve the structure of education to fill existing gaps by creating special incentives for educating strategic human resources; and second, to encourage night school (ensino supletivo) and short courses at the university level to improve local labor forces.

The economic and social structures of Latin America which have given rise to education and development policies include a particular set of social roles and expectations for women. Female educators must operate under the constraints imposed both by their gender and by their social class. Perhaps the most significant aspect of Latin American women's roles is that gender is considered to be overshadowed by social class (Pascatello 1973:xiv; Knaster 1976:32). Moreover, not only is social class inequality so pronounced that it outweighs gender inequality, but a further inequality occurs with development that often benefits middle- and upper-class women, but not lower-class women (Nash and Safa 1976).

Brazilian educators are, by and large, female and middle class. Theirs is an occupation which accords well with women's roles as moral guardians of the family and nurturers of children. Female educators can fulfill these roles outside the family in schools, but even there women are sheltered and segregated from most adult males. Women occupy what historians call "separate spheres" (Degler 1980:26-29) from men, with limited access to public spheres. In a male-dominated society, women are a cheap, docile workforce. Furthermore, as teachers they socialize students to be the same. Teachers are near the bottom of the decision-making process in the hierarchy of education bureaucracies, just as women (particularly those of the middle class) have less decision-making power in families than do their fathers or husbands.

Teachers traditionally receive low salaries. In part, this reflects the Brazilian preference for an academic model of schools and teachers (Teixeira 1977) that includes among its characteristics the remuneration of the teacher as a "poorly paid custodian of the gateway to 'culture'" (Mead 1950:13). Low salaries, however, also reflect the view that education is a woman's occupation--especially at the primary level--rather than a "primary breadwinner's"

(i.e., a man's) occupation. Somewhat offsetting the disadvantage of low salaries is the shortness of the typical Brazilian school session (four to five hours, with sessions held in the morning, afternoon, and evening in crowded town and city schools), thereby enabling women to discharge family obligations. Given the generally middle-class status of teachers, however, many also are able to rely on either the extended family or servants for help in childcare and housekeeping. Thus, both gender and class characteristics help shape the role of Brazilian educators.

When government invests in education to increase labor productivity and promote economic development, women educators receive the first benefits of this support, as in the case of the Second Amazon Development Plan's priority on training educators. As will be seen in the following case study, the benefits are tied more to class than to gender. Even though female educators do receive development program benefits, so do other important groups in the emerging middle class. Ironically, the middle class seems to benefit more than the lower class. In short, women who are middle class reap development benefits along with middle-class men, and both sexes benefit more than do either men or women of the lower class.

The Case Study: A Frontier Community

Itaituba is a município and municipal seat located in the southwest corner of the state of Pará. As noted above, most educators there are female, from the top administrators of the State Education Division and the County Education Secretariat to the school directors to the classroom teachers in all three of the município's school zones: town schools, river and rural village schools, and highway schools. The State Education Division is one of the three largest bureaucracies in the município and the only one administered by women. The female majority in the school system gives women a political power base of their own that they can and do use (L. Miller 1981).

In 1970, Itaituba had 28 primary schools with 20 teachers and approximately 1,000 students. There was also one middle school and a regional normal school operated by nuns with two hundred seven students. There were 2,200 municipal seat residents and a total município population of 12,690. By 1977, there were 105 primary schools with approximately 178 educators and 4,000 students. There were two middle schools (although one was in its final year of operation) with about thirty-five educators and over six hundred fifty students. There were approximately 12,000 town residents and a total município population of 16,143.

Growth in the school system had occurred because Itaituba was crossed by two new Federal highways in the early 1970s. With the highways came rapid growth in population, in business and commerce, and in government agencies to promote development. New schools, inservice training for teachers, new education agencies, and a salary supplement for educators were matched by similar changes in other government agencies located in the community.

Despite the change in transportation that occurred because of two Federal highways in a community which previously relied on riverine (and more recently, air) transportation, other changes in the community were not as profound and can be considered new variations in old patterns. Economic boom and bust cycles, an extractive economic system, high geographical mobility, and domination of the community by outsiders were all traditions that continued in the face of a decade of growth and change. In education, the traditional patterns of a generally low educational level, migration for education, and educational control by outsiders persisted.

The principal change in the community was the creation of a new middle class as the old local elite fused with the outsiders who came to staff new agencies or to start businesses. Female educators were an important segment of the new middle class. The expanded social system was paralleled by an expanded role for educators, who reached more students, kept them in school longer, and attempted to involve the larger community in entertainment events. Furthermore, the old formal role of educators as transmitters of a frontier approximation of a national, urban, elite, academic culture to children changed as the aristocratic ideal of education was diluted by a more middle-class ideal of education for work.

Itaituba's nascent middle class has been the primary recipient of the benefits of development. In the male sphere, town-based businessmen and bureaucrats engaged in entrepreneurial behavior to take advantage of government resources (D. Miller 1982). This was an unintended effect of development programs, since they had originally been designed to benefit small farmer colonists on the new highways. The latter fared poorly as problems of cash crop growth, storage, transportation, and sale proved difficult to solve. Bureaucrats, however, prospered as they gained more rapid advancement in their careers--and sometimes hardship pay--by working in a frontier area. So too did businessmen who acquired several new client groups--colonists, bureaucrats, and the gold miners who flocked into Itaituba (but who were not included in development programs).

In the female sphere, educators took advantage of special inservice teacher training programs to increase their level of education and, therefore, their salaries. Sixty-three highway teachers (including four males) moved up from lay teacher (leiga) status to licensed rural primary school teachers (regentes de ensino); twenty-six river/rural village and municipal seat educators completed their high school educations (pedagógico) and became administrators--either as school directors or as members of the newly created State Education Division.

The inservice teacher training programs offered unprecedented government support in the form of time, personnel, room, board, and salary. Ordinarily, rural people have access locally only to primary schools. Municipal seat residents were more fortunate in having a middle school, but the nearest high schools were over 300 kilometers away in the city of Santarém. Traditionally only children of the rural elite--the more successful rubber traders and merchants--could afford to attend. Thus, the inservice high school program

was the only chance Itaituba residents had to receive this level of schooling locally. Similarly, the inservice First Level (eighth grade) program was an unusual opportunity for rural highway teachers.

Women clearly benefited, but the benefit had more to do with being middle class than with being female. A few men took advantage of the unusual benefits offered to teachers and became highway teachers and participants in the inservice programs. Although there was a considerable difference in social standing, education, and prestige of residence between a highway teacher and a State Education Division administrator, this difference reflected the fluidity of and variability within Itaituba's nascent middle class. Despite their differences, all educators in Itaituba were called "Professora" (or Professor) and all were socialized to bureaucratic ways during the frequent inservice programs. Since the latter were held in the municipal seat, educators were also socialized to the intense urbanism which is a special feature of Brazilian small towns (Harris 1971; Hutchinson 1957; Margolis 1973). Both bureaucratic and urban values in this context are essentially middle class.

The way in which the benefits of development programs were distributed in Itaituba supports the generalization that social class inequality outweighs gender inequality in developing areas. Although the assertion was made that female educators benefited more as members of the middle class than as females, the fact remains that there also was a gender difference within the middle class in the distribution of the benefits of development. Education was the only arena in which a large group of women benefited, in marked contrast to men, who benefited in several arenas. Women were conspicuous in their absence from prominent positions in local government, business, and national agencies such as banks and the army. Two exceptions to this generalization were a middle-class, female immigrant who was director of the agricultural extension service and a female member of the old local elite who was the first Itaituban hired to train as a bank teller in town. Possibly these exceptions indicate a future employment arena (local branches of state and national agencies other than the schools) for middle-class women.

Similar arenas did not exist for lower-class women who, like lower-class men, received fewer benefits from development programs than the middle class. When expansion of jobs for lower-class women occurred, it was in the lowest-paying, most exploitative types of employment--domestic service in town and prostitution in the gold mining camps. These jobs require no schooling. Some young women, however, became servants in town in order to attend middle school, hoping their schooling would lead to better jobs and movement upward into the middle class. As women, however, the social status of most will be determined by the occupational success and/or family background of the men they marry.

Finding a job also remained important to middle-class women, since multiple job incomes are needed to support a middle-class life style. In contrast to lower-class women, however, middle-class women received some benefits from development programs as better jobs became open to them.

Female Educators and Development in Itaituba

Patterns of growth and change in the community had an impact on three types of development: community, human resources, and economic. Female educators played a role in all three. They promoted community solidarity. They developed human resources by teaching literacy and socializing students to bureaucracy. And, in this role, they indirectly aided economic development (although the migration of the best students out of the community hindered it).

First, female educators promoted community development by generating community solidarity, integration, and pride, uniting locals and outsiders as fellow Brazilians performing their patriotic duty by developing the frontier. In this sense, then, they were official promoters of patriotic nationalism and national integration. Integration occurred in classrooms among teachers and students, in schools and offices among educators and sometimes parents, and in schools, clubs, and sports fields among educators and other community members. While continued residence in the community will eventually transform immigrants into locals, the community is likely to remain a stratified aggregate of many groups who sometimes conflict and sometimes form either vertical or horizontal alliances. Individual educators, then, were leaders both in bringing together large groups to instill a temporary spirit of community unity through participation in ritual events and in bringing together representatives of the smaller groups who had power over various resources to cooperate as patrons of the schools. This role corresponded to middle-class women's role as organizers of family-oriented entertainment events and as leaders in the social and cultural life of the community.

As a group, educators promoted community pride whenever they or their students advanced their educational level because better-educated community members are just as much an image of progress and civilization as are beautiful schoolyards, parks, and town halls. This is a qualitative type of community development, the importance of which rests on the need of isolated people to gather together for recreation, develop a sense of pride in community accomplishments, and "keep up with the Jones" in state capitals and more developed regions. In short, educators became developers of movimento, the sine qua non of Brazilian community life (Wagley 1971:139).

A second component of the role of female educators in community development was their unofficial, but no less important, role as proponents of middle-class community life, which had both positive and negative effects on community development. In a community where a middle class was just emerging as an important sector, female educators contributed to community development by being vanguards of the "middle-class revolution" (Fernandes 1976). Although they were only one middle-class occupational group among many, they reached more members of the community than any other group. During festivals, they demonstrated how patrons from different groups could cooperate to help the school while polishing their own image in the community. Members of new groups, such as local government personnel, could be seen to cooperate

with new powers while also seeking to redefine their own niche in the expanded community power structure. Female educators, as a middle-class occupational group, made the school an arena for other middle-class groups where they could work out their interrelationships. In this way, educators helped the community adjust to rapid growth and the changes rapid growth forced on the social system.

This middle-class bias, however, may be seen as having had a negative effect on the lower-class majority in the community. Bureaucratic barriers and the related pressures toward middle-class behavior can act as barriers to lower-class participation, presenting pitfalls in coping with bureaucracies and other facets of middle-class life which members of the lower class have to overcome in order to find patrons and take advantage of opportunities for advancement in the community.

This leads to consideration of a second type of development, that of human resources, in which female educators affect people as individuals rather than as a group. Socializing students and members of the larger community to bureaucratic ways and teaching literacy skills, together constitute a contribution to human resources development. Both allow people to acquire and improve skills that can give them a better chance of consolidating and maintaining improvements when opportunities change.

In the urban, industrialized world of developed Brazil (the South), literacy and the needs of bureaucracy (i.e., documentation) are linked and are transmitted together in educational systems, even in supposedly nonformal education programs like MOBRAL (Buschman 1980). The linkage of literacy and bureaucracy increasingly was becoming a part of Itaituba's school system, as educators were taught how to plan and keep lessons and records on paper and were required to do so by the state. In turn, educators were becoming stricter with students and their families in the enforcement of documentation requirements for enrollment.

Thus, the role of female educators in human resources development involved more than teaching literacy skills; it also included socialization to bureaucracy and more general patterns of middle-class behavior as an equally important skill necessary for human resources development. While official development plans included formal education and vocational training as requirements for human resources development (which, in turn, is a requirement--as human capital--for economic development), they did not mention socialization to bureaucracy and middle-class behavior. Yet, both types of learning are necessary to all members of the community. Rural people are aware of the need for literacy as a defense against exploitation (U.N. 1968: 69; Shirley 1971; Thomas and Wahraftig 1971). Documents are needed to participate in the benefits of development, for example, to enroll in school or to open an account at the bank. Literacy is necessary to read the documents once obtained; but, before that, sociocultural knowledge is needed to interact with middle-class bureaucrats (social workers, agricultural extension agents, teachers, bankers) to obtain documents.

Literacy alone, however, does not necessarily include the skill to understand documents. New teachers and the remote river village teachers had the most trouble filling out a written questionnaire I used near the end of fieldwork to supplement ethnographic data. A small storekeeper in a river town was literate but still unable to understand his income tax form (an experience with which many literate, middle-class Americans can empathize). Only experience with bureaucratic organizations, their personnel and their identity symbol--paperwork--(Wolcott 1977) slowly socializes people to defensive behavior.

It may be argued that the rural educators and the storekeeper had a less developed literacy; it is true that they had fewer years of schooling than did many educators who easily understood my questionnaire, but they also had less experience with bureaucracies. Teaching reading, writing, and arithmetic and socializing students to bureaucratic, middle-class behavior are inextricably linked in the schools. Educators are socialized to both types of learning when they are trained (Eddy 1969); and they, in turn, socialize their students to both. Given the growth of bureaucracies in the community and the increasing use of paperwork to keep track of people,[3] socialization to bureaucracy and its middle-class bureaucrats was adaptive for all social classes and, therefore, a positive role for female educators to play in human resources development.

This is not meant to suggest that lower-class people should learn to act like middle-class people. It does suggest that people can better communicate with each other if they understand each other's customs.[4] Communication, in this sense, means to give or receive necessary information in order to accomplish a goal--something people in all social classes do, even if in different ways. Parents from different social classes send their children to school for different purposes: to maintain middle-class status, to seek it, or to develop defense skills such as literacy. In addition to reading, writing, and arithmetic, their children may also learn the values held by middle-class bureaucrats such as the emphasis on the art of appearances in the form of formal social behavior, paperwork planning and documents, and physical appearances. This knowledge can enable children and parents who do not necessarily share these values to at least know how to behave with bureaucrats to achieve their own goals. Thus, socialization to bureaucracy confers a companion defense skill to that of literacy.

The third type of development in which female educators had a role was economic development. This was a direct and positive role for the educators themselves, as they and other members of the new middle-class and old local elite benefited more from government economic development programs in Itaituba than the lower class. Further, as noted above, the school system was the only arena in which a significant group of women benefited from development programs. New educators were recruited from both locals and immigrants in the community to staff new or growing schools and new educational bureaucracies. New and old educators were paid to attend inservice teacher training courses, some of which increased their level of education

and, therefore, their salaries and chances for career advancement. Experienced female teachers became school directors, secretaries, and administrators. The MEC (Ministry of Education and Culture) salary bonus boosted the salaries of both state and municipal educators.

As far as the rest of the community was concerned, female educators made an indirect contribution to economic development through their role in developing human resources. Educators did have an expanded role in this area since they kept more community residents of all ages in school longer with "recuperation" (remedial classes at the end of the regular school year) and night school programs. Through this pedagogical effort and through the socialization to bureaucratic, middle-class behavior patterns, female educators developed human resources by fostering skills needed to adapt to an urbanizing community with an expanding social structure but still uncertain economic system.

The people of Itaituba need to be flexible and adaptable to the changing economic fortunes of their community. Their willingness to migrate for economic and educational opportunities is one traditional characteristic of the population that educators passed on to the next generation through their own example and through the desire to continue schooling which they helped foster in successful students. Educators' success in human resources development, however, had a negative effect on economic and community development in the case of middle-school graduates who were a "brain drain" when they left Itaituba to seek a high school or university education. Establishing a high school in Itaituba would temporarily alleviate the problem or, at least, its educational aspects. Beyond school-related activities, however, the educator's role ends since economic development depends primarily on economic activities that create jobs. Brazilians have demonstrated their willingness to migrate to the frontier in search of economic opportunity. Whether or not they will stay depends more on the jobs they find than it does on the ability of female educators to improve community life by providing schooling and entertainment.

Human Capital in Itaituba

In practice, "human capital" theory presently is not working in frontier communities like Itaituba. Other researchers have pointed out that the Brazilian frontier is not a land of opportunity for most settlers (Lisansky 1980; Margolis 1973; Vollweiler 1979). Economic development has not occurred on the frontier, but economic growth has. Land has been "mined" of nutrients for crops and cattle as well as for minerals. People have been exploited through debt peonage and through the expropriation of land from peasant squatters and from Indians (Wood and Schmink 1978; Davis 1977).

This does not mean that national development plans have failed but that the Brazilian model of development, as explained by Simonsen (1973), accepts these conditions as the price of development. In Itaituba and other Brazilian frontier communities, "human capital" is not being developed to increase skills and labor productivity. Instead, "human capital" in the form of cheap unskilled labor is being exploited in the hope of accelerating the GNP.

This is true of both male and female "human capital." In many cases, family unity is threatened by economic activities that result in the separation of men from women and children, as in Itaituba when male gold miners live in the rough, isolated camps while women and children live in town. Women are faced with conserving or even generating income to fill the gaps while men are away as well as with caring for their children (who may also work) and securing their access to health and educational services. The latter services are the principal reason families of gold miners, as well as some farmers, move into the municipal seat (see also Lisansky 1980).

The extensive use of lay teachers (leigas) is an example from within the school system of cheap, underqualified labor being exploited for the cause of development. Lay teachers are usually women who live and teach in rural river villages and especially in highway neighborhoods. Better educated, urban women will not teach in these schools. Some local men will, however, when economic conditions in these areas become adverse, thereby emphasizing that these jobs are neither lucrative nor sufficiently well-paid for a "primary breadwinner" under better circumstances. Lay teachers have just enough education to pass on literacy skills to their students. This ability accords with the patriotic, practical function of schools to produce conscientious citizens and good workers who are not expected or supposed to read independently or develop a love of learning for its own sake. Minimally qualified and remunerated lay teachers pass on the bare minimum of learning to students, most of whom are future small farmers and gold miners--another generation of exploitable "human capital."

In effect, expanded educational services are the carrot at the end of the stick. When small farm families seek jobs for their members as teachers and servants in the rural primary schools and send their older children to work and board in town to attend middle school, they are using education as a long-term investment in human resources development. They are the ones who are truly trying to develop human capital, in the sense of striving to educate their children to acquire more skills and to become more productive workers able to take better jobs if such jobs become available. The goal is a better life through better-paying employment. The question is whether such jobs will be available in any quantity in communities like Itaituba. Availability seems unlikely under present economic conditions--an extractive economy in frontier areas within a national economic context of unequal income distribution.

It is doubtful, moreover, that expansion of educational services alone will lead to long-range redistribution of income, as Simonsen (1973) argues. There are too many constraints on low-income children's participation in formal schooling. An improvement in the family's standard of living usually must occur before, rather than after, an increased investment in children's education can be made, implying that other changes in social and economic structure would have to be made before development through education could make a significant contribution.

Three conclusions can be drawn from this case study which demonstrate that development, class, and gender must be seen as interrelated to understand what happens when attempts are made to put human capital theory into practice. First and most important, human capital is divorced from development whenever it is exploited without also being developed. When the majority of Itaitubans are undereducated along with their teachers, a higher level of skills, and therefore productivity, cannot be achieved. Development programs have enabled modest progress to be made in this area, but more than this minimum is required. At present, cheap, unskilled labor is in demand more than skilled, productive labor, leading to the second conclusion.

When human capital is developed, as in the case of middle school graduates, it must leave the community in search of more education and better jobs. The continued growth of Itaituba's emerging middle class is limited by the availability of jobs deemed appropriate by its members, and the next generation has already begun plans to migrate.

Third, the generally low level of both education and jobs fosters continued exclusion of most women from economically important roles. This case study supports the generalization that, in an underdeveloped or developing area, social class inequality is greater than gender inequality. Gender inequality is present, however, as can be seen when comparisons are made either between the sexes within one social class or between social classes within one gender. Middle-class women have fewer employment opportunities in the expanded job market than do middle-class men. Lower-class women are not reaping the benefits of development programs when compared to middle-class women. As long as cheap, unskilled labor is in greater demand than skilled, productive (and necessarily more expensive) labor, the effort to develop human capital will remain a planner's ideal rather than a reality in frontier communities like Itaituba.

NOTES

1. This paper is based on anthropological field research conducted in 1976-77 in Brazil, with funding from the Tropical South America Fellowship Program of the University of Florida.

2. A somewhat different version of this paper was presented at the Southern Anthropological Society meetings, April 16, 1982, in Boone, North Carolina.

3. This is part of national security activities in the case of the army, that requires all outsiders in the community to register at the base, including the Project Rondon students (a university-based community development program).

4. The difficulties of communication between colonists on the Transamazon Highway and agency personnel sent there to help them are described in Moran (1981:162-163).

REFERENCES

Becker, Gary
1964 Human Capital. New York: Columbia University Press.

Buschman, James Lynn
1980 Adult Schooling and Access to Society: A Brazilian Community Study. Journal of Thought 15(3):129-140.

Davis, Shelton H.
1977 Victims of the Miracle: Development and the Indians of Brazil. Cambridge: Cambridge University Press.

Degler, Carl N.
1980 At Odds: Women and the Family in America from the Revolution to the Present. New York: Oxford University Press.

Eddy, Elizabeth M.
1969 Becoming a Teacher: The Passage to Professional Status. New York: Teachers College Press.

Fernandes, Florestan
1976 A Revolução Burguesa no Brazil. 2nd Edition. Rio de Janeiro: Zahar Editores.

Harris, Marvin
1971 Town and Country in Brazil. New York: Columbia University Press. (1956)

Havighurst, Robert and J. Roberto Moreira
1965 Society and Education in Brazil. Pittsburgh: University of Pittsburgh Press.

Hutchinson, Harry W.
1957 Village and Plantation Life in Northeastern Brazil. Seattle: University of Washington Press.

Knaster, Meri
1976 Women in Latin America: The State of Research, 1975. Latin American Research Review 11(1):3-74.

Lisansky, Judith M.
1980 "Santa Teresinha: Life in a Brazilian Frontier Town." Ph.D. dissertation, Department of Anthropology, University of Florida.

Machado, Paulo de Almeida
1974 "The Role of Education and Research in the Development of the Amazon." In Charles Wagley (ed.) Man in the Amazon. Gainesville, Florida: University of Florida Press.

Margolis, Maxine L.
1973 The Moving Frontier: Social and Economic Change in a Southern Brazilian Community. Gainesville: University of Florida Press.

Mead, Margaret
1950 The School in American Culture. Cambridge: Harvard University Press.

Miller, Darrel L.
1982 "Entrepreneurs and Bureaucrats: The Rise of an Urban Middle Class." In Emilio F. Moran (ed.) The Dilemma of Amazonian Development. Boulder, Colorado: Westview Press.

Miller, Linda
1981 Patrons, Politics, and Schools: An Arena for Brazilian Women. Studies in Third World Societies 15:67-89.

Mincer, Jacob
1974 Schooling, Experience and Earnings. New York: Columbia University Press.

Moran, Emilio F.
1981 Developing the Amazon. Bloomington, Indiana: Indiana University Press.

Nash, June and Helen Safa (eds.)
1976 Sex and Class in Latin America. New York: Praeger Publishers.

Pescatello, Ann (ed.)
1973 Female and Male in Latin America: Essays. Pittsburgh: University of Pittsburgh.

Schultz, Theodore W.
1963 The Economic Value of Education. New York: Columbia University Press.

Senna, Jose Julio de Almeida
1975 "Schooling, Job Experience, and Earning in Brazil." Ph.D. dissertation, Economics Department, Johns Hopkins University.

Shirley, Robert W.
1971 The End of a Tradition: Culture Change in Cunha. New York: Columbia University Press.

Simonsen, Mário Henrique
1973 The Brazilian Model of Development. Brasília: Ministério de Educação e Cultura/Fundação MOBRAL.

SUDAM (Superintendencia para o Desenvolvimento da Amazonia)
1976 II Plana de Desenvolvimento da Amazonia: Detalhamento de II Plano Nacional de Desenvolvimento (1975-1979). Belem: SUDAM.

Teixeira, Anisio
1977 Educação não é Privilégio. 4th Edition. São Paulo: Companhia Editora Nacional.

Thomas, Robert K. and Albert L. Wahraftig
1971 "Indians, Hillbillies, and the 'Education Problem'." In Murray Wax, Stanley Diamond, and Fred Gearing (eds.) Anthropological Perspectives on Education. New York: Basic Books.

United Nations Economic Commission for Latin America
1968 Education, Human Resources, and Development in Latin America. New York: United Nations.

Vollweiler, Lothar Georg
1979 "Colonia Fritz: Social Adaptation of Danube Suabian Pioneer Farmers in a Southern Brazilian Frontier Community." Ph.D. dissertation, Department of Anthropology, University of Florida.

Wagley, Charles
1971 An Introduction to Brazil. Revised Edition. New York: Columbia University Press.

Wolcott, Henry F.
1977 Teachers Versus Technocrats: An Educational Innovation in Anthropological Perspective. Eugene, Oregon: Center for Educational Policy and Management, University of Oregon.

Wood, Charles H. and Marianne Schmink
1978 Blaming the Victim: Small Farmer Production in an Amazon Colonization Project. Studies in Third World Societies 7:77-93.

M I C H I G A N S T A T E U N I V E R S I T Y

WORKING PAPERS ON WOMEN IN INTERNATIONAL DEVELOPMENT

Published by the Office of Women in International Development at Michigan State University and partially funded by the Ford Foundation and a Title XII Strengthening Grant

EDITOR: Rita S. Gallin, Office of Women in International Development and College of Nursing

EDITORIAL BOARD: Marilyn Aronoff, Department of Sociology
Ada Finifter, Political Science
Peter Gladhart, Departments of Family and Child Ecology and Resource Development
Mary Howard, Department of Anthropology
Susan Irwin, Department of Anthropology
Nalini Malhotra, Department of Sociology
Anne Meyering, Department of History
Ann Millard, Department of Anthropology
Barbara Rylko-Bauer, Department of Anthropology
Judith Stallmann, Department of Agricultural Economics
Paul Strassmann, Department of Economics
Patricia Whittier, Department of Anthropology

MANAGING EDITOR: Margaret Graham, Office of Women in International Development

EDITORIAL POLICY: The series of Working Papers on Women in International Development publishes reports of empirical studies, theoretical analyses, and projects that are concerned with development issues affecting women in relation to social, political, and economic change. Its scope includes studies of women's historical and changing participation in political, economic, and religious spheres, traditional roles within and outside the family, gender identity, relations between the sexes, and alterations in the sexual division of labor.

MANUSCRIPTS (in duplicate) should be submitted to the editor, Rita S. Gallin, Ph.D., WID Publication Series, Office of WID, 202 International Center, Michigan State University, East Lansing, Michigan 48824. They should be double-spaced and include the following: (1) title page bearing the name, address, and institutional affiliation of the author(s); (2) one-paragraph abstract; (3) text; (4) notes; (5) references cited; and (6) tables and figures. To further the rapid dissemination of information, a timely schedule of manuscript review and publication is followed.

TO ORDER PUBLICATIONS OR RECEIVE A LISTING OF WORKING PAPERS, write to the Office of WID, 202 International Center, Michigan State University, East Lansing, MI 48824.

MSU is an Affirmative Action Equal Opportunity Institution